WHAT IS CLAIMED IS:

1. A fluid supply failure protection valve, comprising:

a housing defining a first fluid inlet in fluid communication with a spaced-apart first fluid port, and a second fluid inlet in fluid communication with a spaced-apart second fluid port;

first valve means for permitting flow communication between said first fluid inlet and said first fluid port in the presence of fluid pressure in said second fluid inlet, and for preventing communication between said first fluid inlet and said first fluid port in response to an absence of fluid pressure in said second fluid inlet; and

second valve means for preventing the flow of fluid from said second fluid inlet to said first fluid port in the presence of fluid pressure in said first fluid inlet, and for permitting flow communication from said second fluid inlet to both of said first and second fluid ports in response to the absence of supply pressure in said first fluid inlet.

2. The supply failure protection valve of claim 1 wherein said first valve means includes a hollow, open-ended valve sleeve disposed in a bore formed in said housing, said bore being in fluid communication with said first and second fluid inlets, said valve sleeve being movable between a first position wherein flow from said first fluid inlet to said first fluid port is permitted, and a second position wherein flow from said first fluid inlet to said first fluid port is blocked.

3. The supply failure protection valve of claim 2 wherein said second valve means includes a piston disposed inside said valve sleeve, said piston movable between a closed position wherein flow from said second fluid inlet to said first fluid port is blocked, and an open position wherein flow from said first fluid inlet to said second fluid port is permitted.

4. The supply failure protection valve of claim 3 further comprising first biasing means for urging said valve sleeve towards said first position.

5. The supply failure protection valve of claim 4 further comprising second biasing means for urging said piston towards said closed position.

6. The supply failure protection valve of claim 5 further comprising a first check valve disposed in said first fluid inlet, said first check valve allowing flow from said first fluid inlet to said bore but preventing flow in the opposite direction.

7. The supply failure protection valve of claim 6 further comprising a second check valve disposed in said second fluid port, said second check valve allowing flow from said bore to said second fluid port but preventing flow in the opposite direction.

8. A fluid supply failure protection valve, comprising:

a housing having a bore with upper and lower portions formed therein;

a cold fluid inlet for receiving a fluid at a first temperature;

a hot fluid inlet for receiving a fluid at a second temperature greater than said first temperature, said hot fluid inlet having a hot fluid check valve disposed therein which allows flow from said hot fluid inlet to said bore but prevents flow in the opposite direction;

a hot fluid port spaced-apart from said hot fluid inlet and connected in flow communication with said hot fluid inlet;

a cold fluid port spaced-apart from said cold fluid inlet and connected in flow communication with said cold fluid inlet;

a hollow sleeve disposed in said bore, said sleeve having open upper and lower ends, and a plurality of side ports formed through the lateral surfaces thereof, said side ports forming a transverse flow path through said sleeve, said sleeve movable between a first position which permits flow communication between said hot fluid inlet and said hot fluid port, and a second position in which flow communication between said hot fluid inlet and said hot fluid port is blocked;

an upper biasing means disposed in said bore above said sleeve, so as to urge said sleeve towards said first position;

a piston disposed in said sleeve, said piston movable between a closed position in which the flow of fluid from said cold fluid inlet to said hot fluid port is blocked and an open position in which flow communication is permitted from said cold fluid inlet to both of said hot and cold fluid ports;

a lower biasing means disposed in said sleeve between said lower end of said sleeve and said lower face of said piston, said lower biasing means urging said piston towards said open position;

wherein:

said sleeve moves to said first position in the presence of fluid pressure in said cold fluid inlet, and moves to said second position in absence of fluid pressure in said cold fluid inlet; and

said piston moves to said closed position in the presence of fluid pressure in said hot fluid inlet, and moves to said open position in response to the absence of fluid pressure in said hot fluid inlet.

9. The supply failure protection valve of claim 8 further comprising a cold fluid check valve disposed in said cold fluid port which allows flow from said bore to said cold fluid port but prevents flow in the opposite direction.

10. The supply failure protection valve of claim 8 wherein said piston has an upper face carrying an upper seal, a lower face carrying a lower seal, and a narrow central member connecting said upper and lower faces.

11. The supply failure protection valve of claim 10 wherein said upper biasing means includes a coil spring.

12. The supply failure protection valve of claim 10 wherein said upper biasing means comprises a surface area at said upper end of said sleeve which is greater than an opposing surface area at said lower end of said sleeve.

13. The supply failure protection valve of claim 10 wherein said lower biasing means includes a coil spring.

14. The supply failure protection valve of claim 8 further comprising a bypass passage providing flow communication between said hot fluid inlet upstream of said hot fluid check valve and said lower portion of said bore.

15. A valve assembly for receiving hot and cold water streams and providing a mixed output stream at a preselected temperature, comprising:

a tempering valve, comprising:

A housing defining a cold fluid port, a hot fluid port, an outlet port, a cold fluid inlet for receiving a fluid at a first temperature, a hot fluid inlet for receiving a fluid at a second temperature greater than said first temperature, a first bore, and a second bore having upper and lower portions, wherein said hot fluid inlet has a hot fluid check valve disposed therein which allows flow from said hot fluid inlet to said second bore but prevents flow in the opposite direction;

a cylinder disposed in said first bore in fluid communication with said cold fluid port, said hot fluid port, and said outlet port, said cylinder having upper and lower sealing edges and a cylinder seal which prevents fluid communication between said hot and cold water ports;

a temperature-responsive element connected to said cylinder and operative to move said cylinder so as to control the relative proportions of flow from said hot and cold water ports to said outlet port for maintaining a preselected fluid temperature;

A fluid supply failure protection valve, comprising:

a hollow sleeve disposed in said second bore, said sleeve having open upper and lower ends, and a plurality of side ports formed through the lateral surfaces thereof, said side ports forming a transverse flow path through said sleeve, said sleeve movable between a first position which permits flow communication between said hot fluid inlet and said hot fluid port, and a second position in which flow communication between said hot fluid inlet and said hot fluid port is blocked;

an upper biasing means disposed in said second bore above said sleeve, so as to urge said sleeve towards said first position;

a piston disposed in said sleeve, said piston movable between a closed position in which the flow of fluid from said cold fluid inlet to said hot fluid port is blocked and an open position in which flow communication is permitted from said cold fluid inlet to both of said hot and cold fluid ports;

a lower biasing means disposed in said sleeve between said lower end of said sleeve and said lower face of said piston, said lower biasing means urging said piston towards said open position, wherein:

said sleeve moves to said first position in the presence of fluid pressure in said cold fluid inlet, and moves to said second position in absence of fluid pressure in said cold fluid inlet; and

said piston moves to said closed position in the presence of fluid pressure in said hot fluid inlet, and moves to said open position in response to the absence of fluid pressure in said hot fluid inlet.

16. The valve assembly of claim 15 further comprising a cold fluid check valve disposed in said cold fluid port which allows flow from said bore to said cold fluid port but prevents flow in the opposite direction.

17. The valve assembly of claim 15 further comprising a movable adjusting stem disposed in said housing which contacts said temperature-responsive element at a preselected position.

18. The valve assembly of claim 15 wherein said piston has an upper face carrying an upper seal, a lower face carrying a lower seal, and a narrow central member connecting said upper and lower faces.

19. The valve assembly of claim 18 wherein said upper biasing means includes a coil spring.

20. The valve assembly of claim 18 wherein said upper biasing means comprises a surface area at said upper end of said sleeve which is greater than an opposing surface area at said lower end of said sleeve.

21. The valve assembly of claim 18 wherein said lower biasing means includes a coil spring.

22. The valve assembly of claim 13 further comprising a bypass passage providing flow communication between said hot fluid inlet upstream of said check valve and said lower portion of said second bore.